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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/052,919 | 11/02/2001 | Michael G. Hollars | PROTP004 | 9751 |

26541 7590 05/04/2004

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EXAMINER

MARSCHER, ARDIN H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1631

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,919

Applicant(s)

HOLLARS ET AL.

Examiner

Ardin Marschel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicants' arguments, filed 2/10/04, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

NON-STATUTORY SUBJECT MATTER

Claims 1-6, 8, and 10-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

This rejection is reiterated and maintained from the previous office action, mailed 9/9/03. Applicants argue that the instant claims qualify for a second safe harbor test that characterizes a process as statutory if it requires the measurements of physical or activities to be transformed outside of a computer into computer data. Applicants further characterize the claimed methods as being directed to modeling molecular systems which involve molecular mechanics or dynamic simulations of physical molecules. Such simulations thus manipulate the data representing physical objects. In response one of the examples of non-statutory subject matter in the MPEP section cited in the previous office action is modeling of noise. Statutory computer subject matter, in contrast was indicated as directed to noise filtering. Given the interpretation that noise filtering is the physical transformation and control of sound energy through matter then the characterization of statutory subject matter is reasonably interpreted as requiring control, for example, of a physical transformation. This is contrasted with the non-

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statutory noise modeling which simulates a physical transformation but does not control it or perform any physical transformation as a result of the practice of such an invention. The modeling of a physical material therefore such as the molecular modeling as instantly claimed is similarly non-statutory as the noise modeling is. The noise modeling also reasonably represents noise during the modeling and also negates the argument of applicants that a representation of a physical transformation is statutory. Applicants secondly argue that the instant invention is directed to a practical application within the technological arts. Again the examples in the MPEP require this criteria of a practical invention to control or transform some physical material. Thus, this argument is also non-persuasive.

PRIOR ART

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 9, 10, 16-18, and 20 are rejected under 35 U.S.C. 102(e)(2) as being clearly anticipated by Sardashti et al. (P/N 6,208,137).

This rejection is reiterated and maintained from the previous office action, mailed 9/9/03. Applicants argue that individual molecules are simulated in the claimed invention in contrast to the reference which utilizes NMR. Applicants argue that the

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molecular system as modeled in the instant claims is distinguished over the reference.

In response, applicants seem to be arguing that individual molecules are being measured alone and separately from others in the practice of the instant invention.

Consideration of the instant claims reveals no such limitation. Rather a molecular system is cited in the claims without being limited to such individual molecule practice.

Applicants point to page 10, lines 17-18 and 28-29, as defining what is being modeled.

Consideration of said page 10 citations reveals that various molecular parameters are discussed as being validated or analyzed in the instant invention but nowhere is there a limitation that such modeling excludes the modeling of a system which may contain many molecules such as in an NMR sample which is being analyzed. Said page 10 citations state what can be modeled as being included in the practice of the instant invention and does not exclude the capability of modeling using more macroscopic methods.

Claims 1-3, 5, 6, 8, 9, and 20 are rejected under 35 U.S.C. 102(b) and (e)(2) as being clearly anticipated by Lee et al. (P/N 5,241,470).

This rejection is reiterated and maintained from the previous office action, mailed 9/9/03. Applicants argue that individual molecules are simulated in the claimed invention utilizing parameters which are not disclosed in Lee et al. Applicants, however, acknowledge that Lee et al. analyze atom rotation around carbon-carbon bonds which is reasonably interpreted as a bond angle between atoms in the molecular system being modeled. It is acknowledged that other energy modeling parameters of Lee et al. are

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no longer embodiments within claim 1 etc, but that the bond angle analysis still is deemed to support this rejection.

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (703) 872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (571) 272-0718. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571) 272-0722.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (571) 272-0549.

April 30, 2004


ARDIN H. MARSCHEL
PRIMARY EXAMINER 4/30/04